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(54) Title: AN AQUEOUS ELECTROLYTE MIXTURE FOR MCFCs

(57) **Abstract:** The present invention relates to an electrolytic mixture for molten carbonate fuel cells (MCFCs). The carrier solution is constituted by one or more organic solvents and water, with an organic solvent percentage comprised of between 5% and 80%. The electrolyte consists of a mixture of Li_2CO_3 and LiKCO_3 in such stoichiometric ratios as to give the $\text{Li}_2\text{CO}_3/\text{K}_2\text{CO}_3$ 62/38 eutectic mixture. The compound LiKCO_3 has a solubility in water, like lithium carbonate, less than that of the potassium carbonate, which is normally found in MCFC electrolytic mixtures. This allows the resolution of the problem of electrolyte loss during the operation of the cell, due to the solubilisation of the same in water.



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